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EFFECT OF CASH HOLDING ON FINANCIAL PERFORMANCE OF QUOTED INSURANCE FIRMS IN NIGERIA

Chinaza Cynthia Okafor[1] Femi Joshua Falope[2] Francis Nnoli Udeh[3]
[1, 2 & 3]*Department of Accountancy, Nnamdi Azikiwe university, Awka, Anambra State, Nigeria.*
Email: chinazaokafor19@gmail.com[1]; fj.falope@unizik.edu.ng[2]; fn.udeh@unizik.edu.ng[3]

***All correspondence to**:* chinazaokafor19@gmail.com

ABSTRACT
This study investigated the effect of cash holding on financial performance of quoted insurance firms in Nigeria. The study is vital as it portrays the extent to which cash holding influences firm financial performance in Nigeria. The study specifically seeks to determine the effect cash holding on return on equity and return on asset of quoted firms in Nigeria. Financial performance was proxy these variables in the study; return on equity and return on assets while cash holding on the other hand was represented by the ratio of cash and cash equivalent to total assets. Two hypotheses were formulated to guide the study and the statistical test of parameter estimates was conducted using Panel least squares regression model. Ex Post Facto design was adopted and data for the study were obtained from the Nigerian Exchange Group Factbook and published annual financial reports of quoted insurance firms in Nigeria spanning 2015-2023. The results of the study showed that cash holding has positive and significant effect on firm performance at 1% significant level. Thus, the study concluded that cash holding determines corporate financial performance in Nigeria. The study therefore recommends amongst other that, managers should consider the financial condition of a firm when determining the optimum cash holdings due to its different effects since optimum cash holdings ensure firm net assets value.

Key words: *Cash Holding, Financial Performance, Return on Equity, Return on Asset, Quoted Insurance Firms.*

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INTRODUCTION

Cash is the most liquid asset. The cash holding therefore helps the firms ensure transaction needs, grasp investment opportunities and risk provisions (Thu-Trang, 2020). The cash holding plays an important role for the management of organizations. However, large cash holding will cause the opportunity costs especially when the firm has omitted investment activities that will yield a return to choose cash holdings. On the contrary, if the firm does not guarantee its solvency, the firm is in danger of facing financial exhaustion. Hence, cash holding is an issue that has generated a lot of debate in academia and financial community. Allman-Ward and Sagner (2023), note that the first function of cash management is to secure the short term normal business activities, manage resources and enhance liquidity. The

essential objective of this practice is to reduce the percentage of liquid assets held by companies in order to fulfil their on-going activities on one hand, and on the another hand, to achieve a sufficient level of cash holdings to empower the company to obtain trade discounts to achieve acceptable credit rating and to meet unexpected cash requirements (Brigham, Gapenski & Daves, 2023).

In Nigeria, insurance companies are regulated and reticulated by National Insurance Commission (NAICOM) established by the Act of 1997. It establishes standards for the conduct of insurance business in Nigeria and also determines the transactions between the insurers and reinsurers in Nigeria and those outside of Nigeria. According to NAICOM, insurance business in Nigeria is not performing well as it suffers from cash flow problem, struggles to settle clients' claims and lack investible funds. Hence, investors are chased away due to its poor performance and no investor is ready to venture into an investment that will not be viable. The failure of insurance business in Nigeria can be tied to low rate in patronage of insurance services by the public and this is suggested to be due to inability of insurance personnel to identify target patrons and adopt different marketing strategies. Also the sales agents and brokers that drive insurance market in Nigeria are not well serviced. Thus, they do not get nice treatment from their insurance companies (Okafor, 2021). However, empirical evidence shows that the emergence of universal banking in Nigeria which has expanded its scope of activities to include a good measure of insurance services has been a major threat to the insurance companies in Nigeria. Almost every bank in Nigeria has an insurance company as one of its subsidiaries (Onyeka, Nnado & Ugwuanyi, 2020). Against this backdrop, the present study seeks to examine the effect of cash holding on financial performance of quoted insurance firms in Nigeria.

Objectives

The main objective of the study is to ascertain the effect of cash holding on financial performance quoted firms Nigeria. The specific objectives are to:

1. ascertain the effect of cash holding on return on equity of quoted firms in Nigeria.
2. assess the effect of cash holding on return on asset of quoted firms in Nigeria.

LITERATURE REVIEW

Cash Holding

Cash is the most liquid cash asset owned by the company. Cash held by companies that can be used to finance company investments or distributed to shareholders is called cash holding (Gill & Shah, 2022). Companies need to maintain cash-holding stability to maintain company liquidity because it's also represents an indicator of a company's ability to pay off short-term debt (Ross, Westerfield & Jordan, 2023). According to Umry and Diantimala (2023), there are many motives for companies to hold cash. It includes the transaction motive in which cash is held to meet short-term cash inflows and cash outflows such as meeting daily and investment needs. The second motive is the precautionary motive which reflects the idea of holding cash to pay future obligations which currently cannot be predicted by the company. Gill and Shah (2022) view cash holding as cash in hand or readily available for investment in physical assets and for distribution to investors. Cash holding is important because it provides firms with liquidity, enabling them to pay their obligations on time even in bad times. Besides that, firms need to build up their cash holding to grow their sales and profits and also ensure the cash movement timing creates an overall positive cash flow situation. Just as cash holdings are an essential part of the firm's growth and survival, Ezenwafor, Okegbe and Nwoye (2021) alerted that cash holdings can be affected by economic recession or financial crises.. As a result, cash usually receives a significant amount of consideration from investors and financial analysts. Cash holdings also minimize the firm's cash flow fluctuations and it is less pricey to turn excess cash into private benefits. Firms will hold the cash to reduce transaction costs and to avoid underinvestment due to fund shortage (Chen & Chuang, 2022). Cash holding is the amount of cash ownership of the company. It is used as a buffer between retained earnings and investment needs. Nwoye, Ezenwafor and Okoye (2021) noted that though there exist no standard cash holding level for firms, it is pertinent that firms reach a consensus from time to time on the optimal cash holding level to maintain, as cash is quite fundamental to a firm's operational purpose.

Basically when maintained, the income is not always sufficient to finance new investment, companies use cash holdings to do so, and in the last instance, they issue debt (Ferreira & Vilela, 2024). The cash holding is characterized by a collection of cash and highly liquid assets with maturity of less than three months (Gill & Shah, 2022). Cash holding ratio of the firms is defined as the ratio between cash and cash equivalents to total assets (Vijayakumaran & Atchyuthan, 2022).

Financial Performance

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Okeke, 2021). There are many different ways to measure corporate performance, but all measures should be taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt. According to Erikie and Osagie (2022), corporate performance is the measuring of results of a firm's policies and operations in monetary terms. These results are reflected in the firm's return on investment, return on assets, value added, return on equity, return on net worth, return on total assets and return on capital employed.

There are many different ways to measure financial performance, but all measures are taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales. A firm's performance is a measure of how well it generates revenues from its primary mode of business. There are a multitude of measures used to assess a firm's performance, with each group of stakeholders having its own focus of interest (Dev & Rao, 2020). According to Ali (2022), the financial performance of firms can be measured in terms of growth of its size (total assets), profitability (return on assets, return on equity, earnings per share) and market-based proxies (market price per share, net assets per share etc). According to Chandra (2022), one of the best ways of evaluating a sector financial performance is by the use of financial or ratio analysis. It shows the relation between one quantity or performance indicators over another, expressed mathematically and tries to summarize huge database for one eye view regarding the financial performance of a firm.

Return of Equity (ROE)

According to the study Return On Equity ROE is a ratio measuring net profit after tax with its capital. ROE growth states that the company's prospects are getting better because it can increase its profit. ROE demonstrates the efficiency of own capital use.

This is expressed mathematically as

ROE = $\frac{\text{NPAT}}{}$

Total Equity

In view of this, unveiling the possible relationship this may share with cash holding activities of the firms under study has led to the hypothesis below:

H_{01}: *Cash holding does not have a significant effect on return on equity of quoted insurance firms in Nigeria*

Return on Assets (ROA)

The reason for choosing this variable is that the return on asset measure the effectiveness of the economic unity in using its assets to generate profit especially manufacturing, the higher this ratio, the better the economic unity of them as it indicates the management efficiency in using its assets to generate profit (Rosikah, 2022). Also, it represents the ratio of how much that has been earned on its assets base. Return on Assets (ROA) is a ratio that shows how much an asset plays in creating a net profit (Hery, 2021). The greater the ROA ratio shows the company's asset management's efficiency and effectiveness, the better. The need to understand the possible relationship this may share with cash holding decisions of firms informed the formulation of the hypothesis below:

H_{02}: *Cash holding has no significant effect the return on assets of quoted insurance firms in Nigeria.*

Theoretical Framework

The Trade-Off Theory

The Trade-Off Theory was propounded by Miller and Modigliani in the year 1958. The trade-off theory points out those indebted companies find it difficult to obtain cash; hence, they usually hold more cash. Therefore, holding more cash is a certain form of insurance that reduces the likelihood of financial distress in the future, probably already intensified due to high leverage. Like debt, cash holding generates costs and benefits; and it is very important in financing the growth opportunities of the firm. The principal benefit of holding cash is that it constitutes a safety buffer (Levasseur, 1979 as cited in Banafa, Muturi, & Ngugi, 2021) which allows firms to avoid the costs of raising external funds or liquidating existing assets and also allow firms to finance their growth opportunities. Thus, insufficient amount of cash forces firms to forgo profitable investment projects or to support abnormally high costs of financing. Two principal costs are associated to cash holdings. These costs depend on whether managers maximize shareholders' wealth or not. If managers' decisions are in line with shareholders' interests, the only cost of cash holdings is its lower return relative to other investments of the same risk. If managers don't maximize shareholders' wealth, they increase

their cash holdings to increase assets under their control and so to be able to increase their managerial discretion. Thus, excess cash to increase assets and competitive advantage as demonstrated by Trade-Off Theory (Jensen, 1986).

Empirical Review

Ferreira and Vilela (2024) investigated the causes of variations in firm cash holdings and its effect on corporate performance. Data used was accessed from financial records of the selected firms from 20 countries that are part of Economic and Monetary Union States for thirteen years (2011- 2023). Using regression model, the results depicted that cash holding has positive and significant effect on corporate performance. The study therefore concludes that cash holding ensure corporate performance. Similarly, Abushammala and Sulaiman (2023) examined whether cash holdings influenced firm performance using profitability aspect. A sample of 65 firms listed at the Amman stock exchange and which were non-financial based were selected for the study for a timeframe of twelve years from 2011 to 2022. Simple regression models were used for data analysis. It was established that there was statistically positive significant influence of cash holdings on profitability of the firms. It was shown that progressive financial performance of a firm is connected to maintenance of cash balances by the management. This positive relationship was supported by Jordanian firm management who believed that lack of effective liquidity management causes cash shortages and this would lead to difficulties in paying obligations as and when they fall due, which negatively affect firm profitability.

Muhammad (2023) assessed the effect of some firm specific factors on cash holdings of a sample of fifty (50) non-financial firms quoted on the Karachi Stock Exchange. The study made use of the Generalized Method of Moments (GMM) on a set of panel data. The period of the study spanned eleven (11) years (2012-2022). The independent variables entered in the dynamic model consist of leverage, return on assets, inventory asset ratio, market-to-book ratio, firm size, networking capital, investment, accounts payable, accounts receivable, bank relationships and foreign direct investment (FDI). The study acquiesced to the existence of significant positive impact of accounts receivable, investment expenditure and leverage on cash positions of the sampled fifty firms. On the other hand, significant negative associations exit between the dependent variable and the predictor variables (firm size, return on assets, net working capital and bank relationship). Wildan, Yossi and Fifi (2023) examined the impact of firm financial performance, free cash flow, and cash holding on the overinvestment of manufacturing companies listed on the Indonesia Stock Exchange in 2017-2021. Multiple

regression method was employed and the results of the study show that free cash flow has a significant and negative effect on overinvestment. It illustrates that higher free cash flow does not encourage a manager to overinvestment.

Mohsin, Shujahat and Ghulam (2023) investigated the determinants of corporate cash holdings. Cash flows, leverage, liquidity, cash flows volatility, profitability, growth opportunities, firm size, debt maturity, and dividend represent the independent variables in the research study. It is based on a panel data of 150 Pakistani non-financial listed firms on KSE during the period 2014-2022. Panel regression analysis has been conducted to determine the major factors affecting cash holdings. The results imply that growth opportunity, company size, cash flows, and profitability of the firms exert a positive effect while leverage and liquidity show a significant negative impact on corporate cash holding. Chude and Chude (2023) examined influenced cash holdings in Nigeria's publicly traded agriculture companies. The purpose of the study is to identify any connections, if any, between growth opportunities, leverage, cash flow, and cash holdings (represented by cash and cash equivalents) of agricultural companies listed on the Nigerian Stock Exchange's floor. An ex-post facto research design was used in the study. Secondary data were gathered from the yearly financial statements of the sampled companies for the study period and publications of the Nigerian Stock Exchange. E-view 9.0 statistical software was used to perform inferential statistics on the hypotheses using the Pearson coefficient of correlation, the multicollinearity test, and the ordinary least square (OLS) regression analysis. The results showed that growth opportunities and cash flow exhibited a significant positive relationship with cash and cash equivalents, while leverage exhibited a significant negative relationship with cash and cash equivalents at the 5% significance level, respectively. It was recommended, among others, that manufacturing firms in Nigeria should identify and monitor key business drivers (for example, growth opportunities, leverage, and cash flow) since they significantly influence cash holdings.

Nirosha, Anura and Shiguang (2023) examined the effects of audit quality and firm growth on the relationship between corporate cash holdings and firm performance by using a sample of some selected non-financial Indian firms from 2004 to 2021 period. The results obtained by controlling for potential endogeneity using the dynamic panel Generalised method of moment (GMM) approach show that cash holdings have an inverse U-shaped (concave) relationship with firm performance, which is stronger for firms with higher audit quality than firms with lower audit quality. Our findings also show that firm growth affects the cash

holdings and firm performance relationship and the moderating effect of audit quality. Our study highlights the need for corporate managers to consider firm performance, audit quality and firm growth levels in policy decisions on cash holdings.

Velnampy and Kajanathan (2023) examined the influence of cash position on profitability of telecommunication firms quoted on the Colombo Stock Exchange for a period of seven years (2016-2022). The study investigated the determinants of cash holdings and financial performance in both Sri Lanka Telecom Plc. and Dialog Telecom Plc. The telecommunication sector of the stock exchange is made up of only these two firms. Financial performance for the two firms was proxied by both return on assets and return on equity. The predictor variables for measuring cash position are made up of cash and cash equivalents to turnover (CCETR), cash and cash equivalents to total assets (CCETAR) and cash and cash equivalents to current liabilities (CCECLR). Data analyses were carried out using multiple correlations and regressions and tests of hypotheses (otherwise, inference) necessitated the use of analyses of variance (ANOVA). The results are inconclusive given the non-existence of any significant associations between the predictors and the dependent variables with respect to Dialog Telecom Plc. Further, measures of central tendencies and dispersion showed no significant deviations in the levels of cash and liquid substitutes of these firms. Employing same multiple correlations and regressions with respect to Sri Lanka Telecom Plc depicted significant relationships between these variables.

Geoffrey, Mirie, Erasmus and Duncan (2023) evaluated the effect of cash holdings on the relationship between financial performance and dividend policy. The study applied positivism research philosophy and descriptive causal research design. The study was anchored on hypothetical view that the relationship between financial performance and dividend policy of firms listed at the Nairobi securities exchange is not intervened by cash holdings which was tested against a sample size of 31 firms listed at the Nairobi securities exchange selected using purposive sampling technique. The research findings using regression model were as follows: there was a significant direct association between operating cash flows and dividend policy which was intervened by cash holdings. In general it was concluded that the link between financial performance and dividend policy of firms listed at the Nairobi securities exchange was significant. The study outcome augment existing knowledge on financial performance and dividend policy for it is evident that firms with ability to generate income directly influence dividend payout ratio and therefore, top management should enhance financial performance and not dividend policy which is irrelevant.

MATERIAL AND METHODS

The research design used in this study was *Ex-post facto*. It is a design that predicts the effect of one variable (independent variables) on the other variable (dependent variable). This design was used in order to determine the effect of the explanatory variable (CH) on the dependent variables (ROE & ROA) and also because the existing data used cannot be manipulated or controlled. Secondary data was used for the study. The population of the study covered the entire fourteen (14) quoted insurance firms on Nigeria as at 2023 business list. The study used the entire population, thus, the population of the study becomes the sample for the study. The study covered a period of nine (9) years spanning 2015-2023. This is the period where there was a significantly high inflation rate which is consistently above average compared to other countries in the region; this is largely attributed to factors like currency devaluation, fuel subsidy removal and rising food prices. Hence the period was proposed to draw a reliable conclusion. It is worthy to note that data for our dependent variables; Return on Equity was captured using net profit after tax measured by owners' equity while Return on Assets (ROA) was captured as net profit after tax measured by Total Assets and independent variable Cash Holding (CH) proxy using cash and cash equivalent measured by total assets as used in the study of Ugwu (2020), Chude and Chude (2023). The data were obtained from the Nigerian Exchange Group Factbook and Annual Reports and Accounts of the firms under review.

The researcher adapted and modified the models of ifada, Indriastuti and Hanafi (2021) and Olatunde and Ade (2021) in determining the effect of cash holding on firm performance of quoted firms in Nigeria. This is shown below as thus:

Ifada, Indriastuti and Hanafi (2021): $FV = \beta_0 + \beta_1 CH + \varepsilon$…..….Eqn 1.

Olatunde and Ade (2021): $ROE = B_0 + B_1 CH + \mu$ …..….Eqn 2.

The modified functional model proposed for the study is shown below as thus:

$ROE = F(CH)$ …..….Eqn 3.

$ROA = F(CH)$ …..….Eqn 4.

The Econometric Form of the Regression used for the study is also shown below as thus:

$ROE_{it} = \beta_0 + \beta_1 CH_{it} + \mu$…..….Eqn 5.

$ROA_{it} = \beta_0 + \beta_1 CH_{it} + \mu$…..….Eqn 6.

Where:

CH = Cash Holding

ROE = Return on Equity

ROA = Return on Assets

μ = Stochastic Disturbance (Error Term)

$_{t}$ = Time Variant for the Study

β_0 = Intercept of Relationship in the Model Constant

β_1 = is the Coefficient of the Independent Variable

'*A Priori*' *Expectation* is given as: $\beta_0, \beta_1 > 0$

RESULT AND DISCUSSIONS

Descriptive Analysis

Descriptive statistics was employed alongside the panel least squares regression model and other diagnostic test tools like Correlation Matrix and Durbin-Watson Statistics criterion to investigate this effect. Therefore, the variables for this study include return on equity (ROE), return on assets (ROA) as dependent variables while the independent variable for the study is cash holding (CH). The variables used for the study was presented on tables as shown below and were used in the data analysis of the study.

Table 1: Descriptive Statistics

	CH	**ROE**	**ROA**
Mean	0.117302	0.095635	0.015714
Median	0.080000	0.060000	0.010000
Maximum	0.540000	13.19000	0.180000
Minimum	0.000000	-12.14000	-0.690000
Std. Dev.	0.119187	1.643067	0.133251
Skewness	1.609683	0.757163	2.730609
Kurtosis	2.472072	2.361693	3.222501
Jarque-Bera	86.49618	15526.80	603.3596
Probability	0.897443	0.933652	0.700976
Sum	14.78000	12.05000	-1.980000
Sum Sq. Dev.	1.775683	337.4587	2.219486
Observations	**126**	**126**	**126**

Source: E-View 12 Computational Results (2024).

The table 1 above shows that the mean value of return on equity (ROE) among the sampled firms for the period covering 2015 to 2023 was 0.096. This implies that return on equity of

quoted insurance firms in Nigeria is determined by corporate cash holding. The maximum value for the study was 13.19 while the minimum value was -12.14. This wide variation in maximum and minimum values of ROE among the sampled firms justify the need for this study that firms' return on equity is determined by corporate cash holding at a degree risk of 1.64%. In an effort to establish the nature of the correlation between the dependent and the independent variables and also to ascertain whether or not multi-collinearity exists as a result of the correlation between the variables.

Table 2: Correlation Matrix

Variables	CH	ROE	ROA
CH	1.000000		
ROE	0.270125	1.000000	
ROA	0.025954	0.028072	1.000000

Source: E-Views 12 Computational Results (2024).

Table 2 above shows the relationship between the independent variable and all pairs of the dependent variables used in the regression model. It reveals that all the dependent variables (ROE & ROA) have positive correlation with the independent variable (CH) while the values on the diagonal are all 1.0000 which shows that each variable is perfectly correlated with itself.

Test of Hypotheses

Hypothesis One

Panel Least Squares Regression Model was developed to test the linear relationship between the dependent and independent variables. It was operated using E-View 12 as shown in the Tables 3 and 4. Thus, the hypotheses are restated as follows:

H_{01}: Cash holding does not have a significant effect on return on equity of quoted insurance firms in Nigeria.

H_{02}: Cash holding has no significant effect on return on assets of quoted insurance firms in Nigeria.

Decision Rule: accept Ho if P-value >1%- 5% significant level otherwise reject Ho

Table 3: Panel Least Squares Regression Result on Effect of Cash Holding on Financial Performance *(ROE)* of Listed Insurance Firms in Nigeria

Dependent Variable: ROE

Method: Panel Least Squares

Date: 06/30/24 Time: 17:14

Sample: 2015 2023

Periods included: 9

Cross-sections included: 14

Total panel (balanced) observations: 126

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CH	0.357787	0.115720	3.091834	0.0000
C	1.053666	0.206539	5.101535	0.0000

R-squared	0.674760	Mean dependent var	0.095635
Adjusted R-squared	0.652385	S.D. dependent var	1.643067
S.E. of regression	1.649123	Akaike info criterion	10.854111
Sum squared resid	337.2314	Schwarz criterion	9.899131
Log likelihood	-240.8090	Hannan-Quinn criter.	11.872401
F-statistic	8.433581	Durbin-Watson stat	1.952861
Prob(F-statistic)	0.000000		

Source: E-Views 12 Computational Results (2024)

In Table 3, R-squared and its adjusted R-squared values were (0.67) and (0.65) respectively. This is an indication that the independent variable explained about 67% of the systematic variations in return on equity (ROE) of our sampled firms over the nine-year period (2015-2023) while 33% of the systematic variations are captured by the error term. The F-statistics 8.433581 and its P-value of (0.000000) portrays the fact that the Panel Least Squares Regression Model is well specified. With this, the researcher affirms the validity of the regression model adopted in this study.

Test of Autocorrelation: Using Durbin Watson (DW) statistics, 1.952861 was obtained from the regression result as shown on Table 3. This agrees with the Durbin Watson rule of thumb which indicates that the data is free from autocorrelation problem and as such fits for the regression result to be interpreted and relied on. Akaike Info Criterion, Schwarz Criterion and Hannan-Quinn Criterion which are 10.854111, 9.899131 and 11.872401 respectively further

strengthen the fitness of our regression result for reliability as it confirm the goodness of fit of the model specified. In addition to the above, the specific findings from our explanatory variable from panel least squares regression model as shown on table 4.2.1 is provided below as thus:

H_{01}: Cash holding does not have a significant effect on return on equity of quoted insurance firms in Nigeria.

This hypothesis was tested and the result of the regression model as exposited on Table 3 indicates that the relationship between cash holding (CH) and return on equity (ROE) is positive and significant with a P-value (significance) of 0.0000 for the model which is less than the 1% level of significance adopted. Likewise the result of positive coefficient of 0.357 for the model indicates that, an increase in corporate cash holding increases firms' return on equity by 0.357%. Thus implies that corporate cash holding ensures firm financial performance in Nigeria. We therefore rejected the null hypothesis and accepted the alternate hypothesis which contends that cash holding has significant effect on return on equity of quoted insurance firms in Nigeria.

Hypothesis Two

Table 4: Panel Least Squares Regression Result on Effect of Cash Holding on Financial Performance *(ROA)* of Quoted Insurance Firms in Nigeria.

Dependent Variable: ROA
Method: Panel Least Squares
Date: 06/30/24 Time: 17:16
Sample: 2015 2023
Periods included: 9
Cross-sections included: 14
Total panel (balanced) observations: 126

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CH	0.302001	0.096667	3.124119	0.0022
C	0.051139	0.016133	3.169893	0.0019

R-squared	0.720967	Mean dependent var	-0.015714
Adjusted R-squared	0.705491	S.D. dependent var	0.133251

S.E. of regression	0.128814	Akaike info criterion	11.245150
Sum squared resid	2.057536	Schwarz criterion	11.200129
Log likelihood	80.44444	Hannan-Quinn criter.	11.226859
F-statistic	9.760120	Durbin-Watson stat	2.068266
Prob(F-statistic)	0.002221		

Source: E-Views 12 Computational Results (2024)

In tTable 4, R-squared and its adjusted R-squared values were (0.72) and (0.70) respectively. This is an indication that the independent variable explains about 72% of the systematic variations in return on assets (ROA) of our sampled firms over the nine-year period (2015-2023) while 28% of the systematic variations are captured by the error term. The F-statistics 9.760120 and its P-value of (0.002221) portrays the fact that the Panel Least Squares Regression Model is well specified. With this, the researcher affirms the validity of the regression model adopted in this study.

Test of Autocorrelation: Using Durbin Watson (DW) statistics, 2.068266 was obtained from the regression result as shown on Table 4. This agrees with the Durbin Watson rule of thumb which indicates that the data is free from autocorrelation problem and as such fits for the regression result to be interpreted and relied on. Akaike Info Criterion, Schwarz Criterion and Hannan-Quinn Criterion which are 11.245150, 11.200129 and 11.226859 respectively further strengthen the fitness of our regression result for reliability as it confirm the goodness of fit of the model specified. In addition to the above, the specific findings from our explanatory variable from panel least squares regression model as shown on Table 4 is provided below as thus:

H_{02}: Cash holding does not significantly affect the return on assets of quoted insurance firms in Nigeria.

This hypothesis was tested and the result of the regression model as exposited on Table 4 indicates that the relationship between cash holding (CH) and return on assets (ROA) is positive and significant with a P-value (significance) of 0.0022 for the model which is less than the 1% level of significance adopted. Likewise the result of positive coefficient of 0.302 for the model indicates that, an increase in corporate cash holding increases firms' return on equity by 0.302%. The implication of this is that firm financial performance is a determinant of corporate cash holding.

The study therefore rejected the null hypothesis and accepted the alternate hypothesis which contends that cash holding significantly affect the return on assets of quoted insurance firms in Nigeria.

CONCLUSION AND RECOMMENDATIONS

The study having developed a model fits on the effect of cash holding on firm financial performance in Nigeria notes that between the two categories of firm financial performance measures covered in this study; cash holding exerts more influence on the return on equity (ROE) followed by return on assets (ROA). Therefore, the study concluded that cash holding ensures financial performance of quoted insurance firms in Nigeria. In lieu of the findings of the study, the following recommendations were made:

1. The study recommended that managers should hold optimum cash holding reserves in order to reduce cost of external funding because cash holding has a positive association on return on equity. Also, they should adopt changes in response to customer wants in order to attract a large market share and remain profitable in the market for long term.

2. Managers of insurance firms to continually review their cash holding policies with the aim of optimizing cash holding since cash holding has positive effect on firm return on assets. Thus, investors and policy makers will be interested in investigating why managers in large firms are still holding cash balances equivalent to those of relatively smaller counterparties with less bargaining power.

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